Alcatel-Lucent 1645 AMC

ACCESS MULTIPLEXER COMPACT | RELEASE 9.0

The Alcatel-Lucent 1645 Access Multiplexer Compact (AMC) is an economical STM-1/4 platform that enables service providers to deliver TDM and Ethernet services to small- and medium-sized enterprises, offering enhanced revenue-generating potential. Its energy efficiency and compact size improve space use while lowering operating expenses.

Features

- Energy-efficient and compact design
- Street-cabinet or customer-premise installation
- Support for:
  - ¬ E1 and E3
  - ¬ DS-1 and DS-3
  - ¬ Symmetric high-speed digital subscriber line (SHDSL)
  - ¬ STM-1and STM-4
  - ¬ 10/100/1000 Ethernet
- Virtual container (VC)-12/VC-3/ VC-4 subnetwork connection (SNC) protection
- 1+1 multiplex section protection (MSP)

Benefits

- Eliminates the need for overlay networks
- Enhances revenue-generating capabilities while lowering expenses
- Provides flexible, multiservice access to business customers
- Extends Ethernet services to the metro/access edge
- Provides installation options
- Offers versatile and robust management capabilities
- Supports fiber and copper access for SDH, TDM and Ethernet traffic through both optical and electrical interfaces

Applications

- Economical voice and data customer premises equipment (CPE)
- Ethernet services for business customers
- Ethernet over copper using SHDSL
- 2G/3G mobile aggregation

Technical specifications

Interfaces

- Main board with 16-port E1 G.703 dual impedance: 120 ohm and 75 ohm, self sensing
- Four small form-factor pluggable (SFP) cages with line options, (two cages STM-1/4 switchable, two cages STM-1)
  - ¬ STM-1 1310 nm G.957 S-1.1
  - ¬ STM-1 1310 nm G.957 L-1.1
  - ¬ STM-1 1550 nm G.957 L-1.2
  - ¬ STM-1 electrical
  - ¬ STM-1/4 multirate bidirectional (BiDi) 10 km or 40 km
  - ¬ STM-4 1310 nm G.957 S-4.1
  - ¬ STM-4 1310 nm G.957 L-4.1
  - ¬ STM-4 1550 nm G.957 L-4.2
- Sync-input/output (I/O)
- Miscellaneous Defect Input/Output (MDI/MDO) control interface
- One option slot
- Option boards
  - ¬ 16-port E1 G.703, 120 ohm and 75 ohm, self-sensing
  - ¬ 16-port DS-1: 1.5 Mb/s
  - ¬ 3-port E3/DS3: 34 Mb/s or 45 Mb/s, provisionable
  - ¬ 6-port STM-1: 155 Mb/s, SFP
  - ¬ 12-port SHDSL
  - ¬ 2 Mb timing board, embedded in system or mounted on demand
- Alcatel-Lucent TransLAN® Ethernet Cards
  - ¬ 8-port 10/100BASE-T Ethernet for Ethernet Private LAN (EPL)
  - ¬ 5-port switched Ethernet card, Ethernet virtual private line (EVPL), Ethernet LAN (E-LAN): 3-port 10/100BASE-T, 1-port 10/100/1000BASE-T, 1-port 1000BASE-X (using SX, LX and ZX SFPs)
  - ¬ 10-port switched Ethernet card, EVPL, E-LAN: 2-port 1000BASE-X (using SX, FX, LX and ZX SFPs), 8-port 10/100BASE-T

Ethernet capabilities

- Ethernet services
  - ¬ Point-to-point EPL services
  - ¬ Point-to-multipoint EPL services
  - ¬ Multipoint-to-multipoint virtual line/LAN services (packet ring) with bandwidth sharing and statistical multiplexing
- Ethernet standards and protocols
  - ¬ ITU-T G.7041 frame mapped generic framing procedure (GFP-F)
  - ¬ ITU-T G.7042 link capacity adjustment scheme (LCAS)
  - ¬ Virtual concatenation (VCAT)
  - ¬ IEEE 802.1D-2005 Rapid Spanning Tree Protocol (RSTP)
  - ¬ IEEE 802.1Q virtual local area network (VLAN) tagging/trunking
  - ¬ IEEE 802.1ad provider bridges/ stacked VLANs
  - ¬ IEEE 802.1D Generic VLAN Registration Protocol (GVRP)
- Ethernet traffic classification per
  - ¬ Port
  - ¬ VLAN/priority bits based on IEEE 802.1Q
  - ¬ IP Type of Service (ToS)/ differentiated services code points (DSCP)
  - ¬ Media Access Control (MAC) address
- Service level agreement (SLA) management: traffic profiles
  - ¬ Best effort
  - ¬ Bandwidth guaranteed
  - ¬ Regulated: minimum bandwidth guaranteed plus burst
- Ethernet Performance Management (PM)
  - ¬ Port and service counters
  - ¬ Round-trip delay (RTD) measurements
- Security
  - ¬ Manual MAC table configuration

Certification

- MEF 9 and MEF 14: EPL, EVPL, E-LAN

Protection

- VC-12/VC-3/VC-4 SNCP
- 1+1 MSP (STM-1 only)
- Ethernet: RSTP (IEEE 802.1D-2005)

Network management

- Alcatel-Lucent 1350 Optical Management System (OMS)
- Alcatel-Lucent Integrated Transport Management-Craft Interface Terminal (ITM-CIT)
- Simple Network Management Protocol (SNMP) management
- Status LEDs (front of system)
- Local and remote software download over data communication channel (DCC)
- DCCr transparency

Regulatory compliance

- CB safety, EN 60950 compliant
- CE EMC, EN 300 386 compliant
- Emission in EMC test, EN 55022 Class B compliant
- FCC compliant
- WEEE compliant
- EU Restriction of the use of certain Hazardous Substances (RoHS) compliant
- China RoHS compliant

Physical dimensions

- Height: 70 mm (2.75 in)
- Width: 447.6 mm (17.64 in)
- Depth: 204.2 mm (8.04 in)
- Weight: 5 kg (11.02 lbs) with option board

Operating environment

- Power supply
  - ¬ 24-V, 48-V and 60-V DC
  - ¬ 10-V to 240-V AC, 5/60 Hz
- Operating conditions: ETS300-019-2-3 Class 3.2
- Storage conditions: ETS300-019-2-1 Class 1.2
- Transport conditions: ETS300-019-2-2 Class 2.3

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